

23 JUL 1985

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DAEN-RMM-M

DEPARTMENT OF THE ARMY
U. S. Army Corps of Engineers
Washington, D. C. 20314-1000

ER 10-1-8

Regulation
No. 10-1-8

15 July 1985

Organization and Functions
U. S. ARMY ENGINEER WATERWAYS EXPERIMENT STATION

1. Purpose. This regulation defines the mission and establishes the organization structure of the U. S. Army Engineer Waterways Experiment Station (USAEWES).

2. Applicability. This regulation is applicable to all HQUSACE/OCE elements and all field operating activities.

3. Establishment. The U. S. Army Engineer Waterways Experiment Station was originally established as a hydraulic laboratory, 18 June 1929, under the jurisdiction of the President, Mississippi River Commission (MRC). On 10 August 1949, it was placed under the direct jurisdiction of the Chief of Engineers by OCE GO No. 9, 29 July 1949. The Coastal Engineering Research Center (CERC) was established by Act of Congress (Public Law 172, 88th Congress) approved 7 November 1963, and OCE GO No. 20, issued on 18 November 1963. The act also abolished the Beach Erosion Board and established the Coastal Engineering Research Board. This Board was created to provide guidance and advice to the Chief of Engineers on the coastal engineering research program of the USACE. On 1 July 1983 CERC was transferred to the USAEWES by authorization of Permanent Orders 5-1, 21 March 1983.

4. Mission.

a. The U.S. Army Engineer Waterways Experiment Station, a field operating activity of the USACE, under the command of the Commanding General, USACE, and the staff supervision of the Director of Research and Development:

(1) Conceives, plans, and executes engineering and scientific investigations, and research and development studies, and provides consulting services in support of the civil and military missions of the Chief of Engineers, other Federal agencies, state and local governments, foreign governments, and private firms. The broad fields of work include hydraulics, soil and rock mechanics, earthquake engineering, coastal engineering and nearshore oceanography, concrete, expedient construction, nuclear and conventional weapons effects, nuclear and chemical explosives, excavation, vehicle mobility, environmental relationships, engineering geology,

This regulation supersedes ER 10-1-8, 13 March 1981, and ER 10-1-9, 16 March 1981.

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pavements, protective structures, camouflage, aquatic plants, water quality, dredging material, mine/counter-mine technology, and military related combat and logistical engineering studies.

(2) Includes five technical laboratories: Hydraulics, Geotechnical, Structures, Environmental, and the Coastal Engineering Research Center. Other elements provide technical support to the five laboratories, such as instrumentation, automatic data processing, library and technical information services, and publishing and graphic arts. The Engineering and Construction Services Division provides construction support, mechanical shops and station utilities.

b. Technical Laboratories

(1) The Hydraulics Laboratory develops hydraulic models using both physical and computer simulation techniques. Verifies engineering designs for dams, flood-control systems, channel erosion control measures, pumping plants, river and estuary navigation systems, and operates a computer ship/tow simulator. Provides numerical prediction for channel maintenance, and conducts hydroelectric power studies.

(2) The Geotechnical Laboratory performs research, investigations, and testing in the fields of earth and soil sciences including: soil mechanics, structural foundation design, embankment design, slope stability, seepage analysis, pavement technology, engineering geology, rock mechanics, engineering geophysics, expedient surfacing, dust control, earthquake engineering, vehicle mobility, and trafficability.

(3) The Structures Laboratory conducts research, development, testing, and evaluation work in the fields of weapons effects, earth dynamics, structural design and structural behavior. Performs studies and analyses that include condition surveys of dams and other structures, missile silo tests, ground shock predictions, projectile penetration studies, and concrete research. Conducts investigations to simulate the effects of forces created from nuclear and chemical explosives and earthquakes on existing and experimental structures.

(4) The Environmental Laboratory investigates the effects of man's activities on the environment and environmental effects on man's activities. Civil Works research functions include water and land resource management, waste water management, hazardous waste disposal, coastal ecology, aquatic plant control, water quality, and dredging effects. Military research functions include mine/countermine, remote sensing, digital terrain and weather data base development, hydrology, camouflage, perimeter security, and battlefield environment studies.

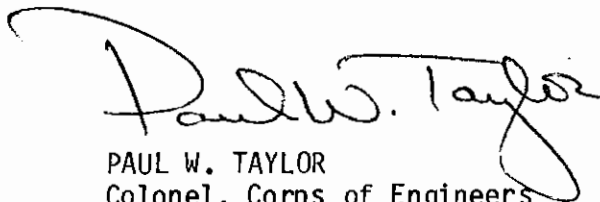
(5) The Coastal Engineering Research Center (CERC) conducts research, development, testing and evaluation work in coastal engineering, including studies of waves, winds, water levels, tides, currents, and their interaction with coastal sediments and structures. Investigates shore and beach erosion control, coastal flood and storm protection, harbor entrances and coastal channels, coastal structures, sand bypassing, coastal dredging and dredged

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channels, coastal structures, sand bypassing, coastal dredging and dredged material movement, navigation improvement, and harbor design and maintenance. Operates the Field Research Facility at Duck, N. C., for study of actual coastal field conditions, equipment testing, and training.

5. Structure. The approved organization structure of USAEWES is shown at Appendix A. Changes to the organization structure at major block level or titles shown on the chart require advance approval of HQUSACE (ATTN: DAEN-RMM) in accordance with the instructions set forth in ER 10-1-2.

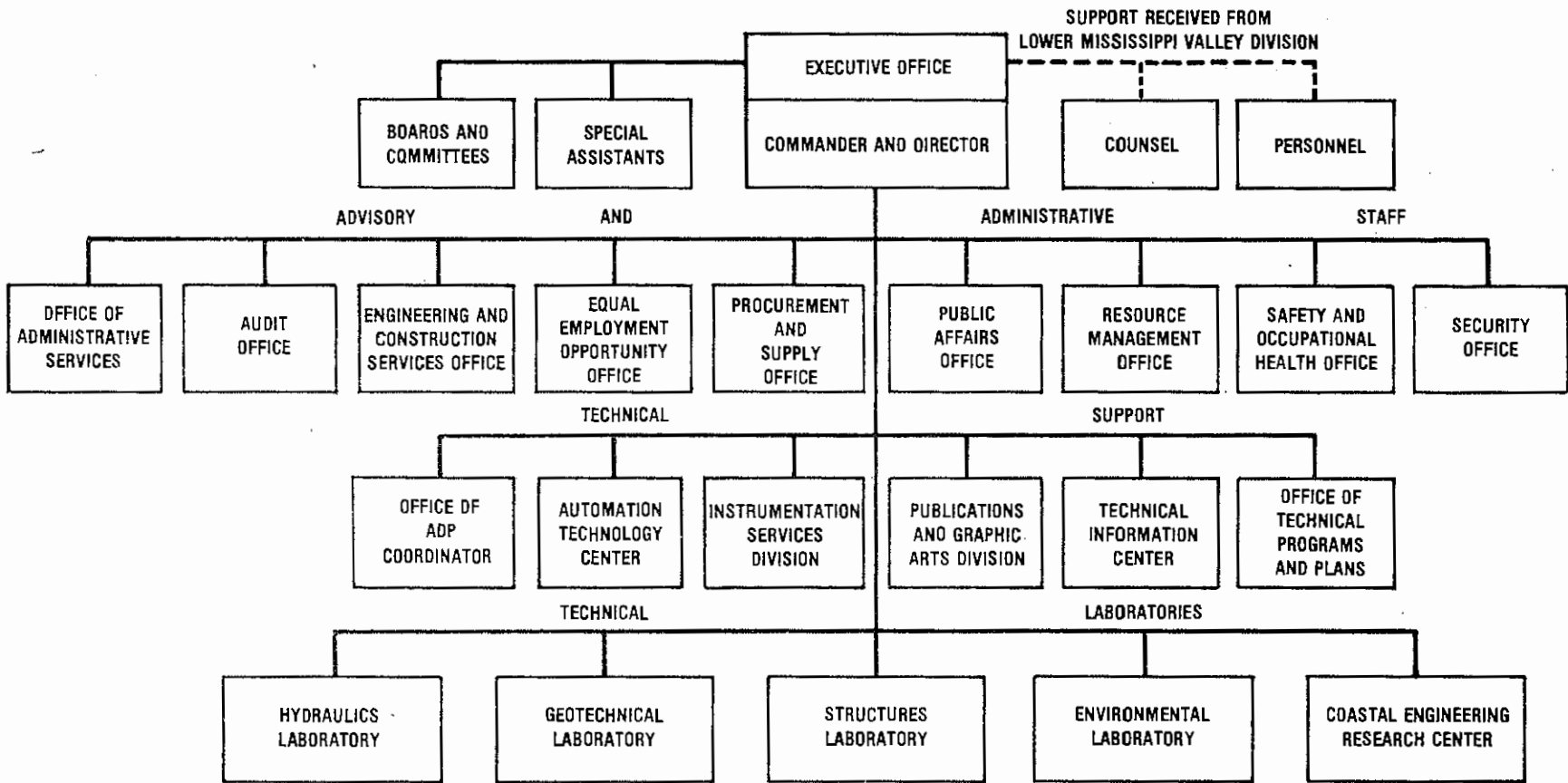
FOR THE COMMANDER:



PAUL W. TAYLOR
Colonel, Corps of Engineers
Chief of Staff

1 Appendix
Organization Chart

US ARMY ENGINEER WATERWAYS EXPERIMENT STATION



A-1

APPENDIX A
U. S. ARMY ENGINEER WATERWAYS EXPERIMENT STATION

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